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690.01 Introduction

This chapter reviews the implementation of project commitments in the field during construction and the process for passing commitments that require long-term care to Maintenance.

As a project progresses through the Design and PS&E Phases (**Part 4** and **Part 5** of this Manual) many commitments in the form of mitigation plans and permit conditions are made to the various resource agencies to protect the environment, reduce social impacts, and protect cultural and historic resources. Some of those commitments must be fulfilled during construction.

Interagency agreements between WSDOT and resource agencies also include environmental commitments, some of which are applicable to construction. These are summarized in **Section 610.03** and discussed in **Chapter 420** through **Chapter 470**. **Appendix E** includes an index to all WSDOT environmental interagency agreements, in the form of Memoranda of Understanding (MOUs), Memoranda of Agreement (MOAs) or Implementing Agreements. **Appendix E** also includes a matrix and an accompanying narrative showing which agreements have provisions applicable construction.

In addition, some statutory requirements do not involve permits or approvals, but still apply to WSDOT construction; for example dangerous waste and underground storage tank requirements. See **Chapter 610** and **Chapter 620** for requirements applicable to construction.

Some of those commitments are unique to a given project and attached to the contract as special provisions or provided to the Construction Engineer for implementation. Other requirements are Standard Operating Procedure for WSDOT; these can be found in the Standard Specifications, WSDOT *Construction Manual* (M 41-01) and *Right of Way Manual* (M 26-01).

* Web sites and navigation referenced in this chapter are subject to change. For the most current links, please refer to the online version of the EPM, available through the ESO home page: <http://www.wsdot.wa.gov/environment/>

690.02 Implementing Environmental Commitments During Construction

(1) **Responsibility for Environmental Commitments**

Under the terms of the contract, the contractor is responsible for complying with all federal, state, and local rules, regulations, and permit conditions related to environmental protection and worker health and safety.

The Project Engineer is responsible for the enforcement of the contract specifications and provisions and the completion of all work according to the plans. The Project Engineer may have additional responsibilities including notification of resource agencies prior to beginning certain work.

See the WSDOT *Construction Manual*, Section CM 1-2.2A.

(2) **Pre-contract Preparation**

During the pre-contract period, the Project Engineer should obtain copies of environmental documents, lists of commitments, environmental job aids and any special environmental studies related to the project from the Regional Environmental Coordinator. All key personnel must become familiar with the environmental commitments made during the design process and with how programmatic agreements apply to the project. This may be done during a constructability review for environmental requirements.

The contract documents will include necessary provisions for environmental protection, including requirements that the contractor secure permits from and abide by regulations of appropriate federal, state and local agencies. Any changes in the contract work that may become necessary must be reviewed to ensure conformance with requirements and commitments established during the environmental review conducted during project design and development. See *Construction Manual*, Section CM 1-2.2J.

(3) **Pre-construction Activities**

(a) **Meetings with Contractor**

(1) **Environmental Commitments**

During pre-construction meetings and discussions with the contractor, the following environmental commitments should be discussed, and relevant files made available to the contractor:

- Environmental commitment files and reports from the Commitment Tracking System.
- Reference to environmental requirements or permits in the *Standard Specifications* or contract provisions.
- Explanation of how any programmatic agreements apply to the project.
- Clear delineation of contractor and WSDOT responsibilities.
- Contractor's responsibility to obtain any local agency permits.

If rock crushers are involved in the project, the State Department of Ecology (Ecology) registration requirements should be discussed (WAC 173-400). In addition, a written record of this discussion

should be sent to the regional office of Ecology so they are aware of the timing and location of the rock-crushing operation. (See *Construction Manual*, Section 1-2.1C.

(2) Other Submittals

Discuss any other submittals that will be needed during the contract and who is responsible. Environmental submittals may include traffic control plans, temporary water pollution/erosion control plans, and spill prevention plans. See *Construction Manual*, Section 1-2.1C.

(b) High-Visibility Fencing for Sensitive Areas

To prevent permit violations during construction, WSDOT Project Delivery Memo #04-04 (August 11, 2004) describes requirements for high-visibility fencing to delineate wetlands and sensitive areas. The memo ([Exhibit 690-1](#)) outlines criteria for identifying wetland and environmentally sensitive prior to commencing construction. Contract plans are to identify these areas and show the location of high visibility fencing.

(4) Construction Monitoring and Non-compliance Events

(a) Construction Monitoring

Environmental inspectors are identified for projects that pose a high level of environmental risk (e.g. projects with in-water work, those affecting sensitive receptors, endangered species or involve a lot of earth work near water bodies etc.). Those inspectors are responsible for monitoring the implementation of environmental commitments.

(b) Unforeseen Situations

Unforeseen situations will frequently occur during construction, for example, finding cultural artifacts, digging up an underground storage tank or encountering contaminated soil. These situations will likely trigger the Environmental Compliance Assurance Procedure discussed below. Sometimes these discoveries will require further review on the part of a resource agency. Refer especially to [Section 620.04](#) (Water Quality), [Section 620.05](#) (Wildlife, Fisheries, and Vegetation), [Section 620.06](#) (Wetlands), [Section 620.08](#) (Hazardous Materials), and [Section 620.09](#) (Land Use, Cultural Resources, and any other sections) for more detail in addressing unforeseen circumstances.

(c) Corrective Action for Apparent Non-Compliance Events



As the owner-contracting agency, WSDOT is responsible for enforcing provisions of the contract. However, WSDOT must also monitor for compliance with all environmental commitments and provisions of regulations which are enforced by resource agencies. Any potential non-compliance events noticed by WSDOT or the contractor will be brought to the attention of the Region environmental staff to document the situation and coordinate a resolution. Coordination will follow the provisions of the Environmental Compliance Assurance Procedure for

Construction (ECAP). See Construction Manual, Section 1-2.2k(1)
online at:

 <http://www.wsdot.wa.gov/environment/compliance/docs/ECAP.pdf>

WSDOT will also notify the responsible agency if necessary and utilize such sanctions as are consistent with contract terms in assisting the responsible agency in enforcing laws, rules, and regulations. See also *Construction Manual*, Section 1-2.2I on safety and health, and Section 1-2.2J on environmental considerations.

When WSDOT employees observe something that is questionable or appears not to be in compliance with state or local laws, ordinances, and regulations, they must bring it brought to the Project Engineer's attention. The Project Engineer is responsible for bringing it to the contractors attention for proper action. Experts in the WSDOT's Regional Office or Headquarters Office or resource agencies should be consulted when dealing with complex issues such as environmental compliance, safety, or hazardous materials. See *Construction Manual*, Section 1-1.72.

(5) Maintenance Walkthrough

Prior to substantial completion of a project with commitments that will be passed to Maintenance and Operations, a Maintenance representative should be walked through the site and be shown any feature for which WSDOT has made long-term maintenance commitments. A representative from the Environmental Office with knowledge of the project's commitments should coordinate with the Project Engineer to organize the meeting and to ensure all the appropriate environmental commitments pertaining to long-term maintenance are reviewed and understood by the Maintenance representative. Documentation of the maintenance commitments should also be provided at that time.

(6) Final Inspection

Construction work on contracts financed in whole or in part with federal funds are subject to final inspection and final acceptance according to the criteria contained in the Construction Monitoring Plan (March 2003), which is part of the WSDOT/FHWA Stewardship Plan. Project type and size determine whether FHWA, the Headquarters Construction Office, or Regional Office will conduct the final inspection.

Final inspections will be performed on all federally aided projects any time after 90 percent completion, and no later than 30 days after physical completion. Final acceptance reports will be completed on all interstate projects delegated to WSDOT and will be completed by the OSC Construction Office as soon as all project requirements have been met. Some environmental commitments will require a final inspection and notification of completion to the resource agency. See *Construction Manual*, Sections 1-2.2D and 1-2.5H.

690.03 Exhibits

Exhibit 690-1 – High Visibility Construction Fencing – Project Delivery Memo #04-04.

High Visibility Construction Fencing – Project Delivery Memo #04-04



Memorandum

August 11, 2004

TO: J.C. Lenzi, Eastern Region
Don Senn, North Central Region
Lorena Eng, Northwest Region, NB82-101
Randy Hain, Olympia Region, 47440
Don Whitehouse, South Central Region
Donald Wagner, Southwest Region, S15
Dave Dye, Urban Corridors, TB85-95

FROM: Don Nelson
360-705-7101

SUBJECT: **Project Delivery Memo #04-04 – High Visibility Construction Fencing**

Purpose and Direction

Background: A number of violations have recently occurred on WSDOT projects relating to unpermitted work in wetlands and other environmentally sensitive areas. These unfortunate occurrences are putting the Department at risk financially and hampering our efforts on permit streamlining. Permits from resource agencies have sporadically required that wetlands and sensitive areas be delineated with either silt fence or high-visibility construction fencing as a means to clearly mark the sensitive areas and thereby minimize the chance for violation. In many cases, however, the contract plans and special provisions have not been entirely clear as to where and when the fences need to be placed, and in some cases this requirement has been either overlooked or done late in the clearing and grubbing operation. Consequently, there have been inadvertent encroachments into wetlands and sensitive areas that were unfenced or otherwise unmarked.

Among recommendations that have resulted from internal investigations of recent violations, it was recommended that all sensitive areas be delineated with high-visibility construction fencing as a first order of work. Resource agencies in their settlement agreements have mandated that this and other recommendations be implemented.

Types of Projects Affected: This specification should be included on all projects where work will be in or adjacent to wetlands or other environmentally sensitive areas.

Direction: During the design phase, and in consultation with the Environmental Services Office or regional environmental office, wetlands and sensitive areas are identified and located with respect to the anticipated work areas. As plans are developed, the sensitive areas will be shown on the contract plans along with the locations where the construction fencing will be installed. High-visibility construction fencing will be required as follows:

- Where partial takes of wetlands are anticipated and clearly allowed by the appropriate permits, the remainder will be fenced.

- Where existing wetlands are to be enhanced as part of the project, they will be fenced until such time as an enhancement plan is submitted and approved by WSDOT.
- Areas that have been designated within the project where grading activity is to be precluded.
- During construction, Section 1-07.16(1) identifies areas the Project Engineer may designate to be protected from damage. These areas may be fenced at the Engineer's order. Compensation for fencing the wetland and sensitive areas will be by means of a change order. The project office staff is encouraged to work with region environmental staff if there is a question of whether an area is of an environmentally sensitive nature.

Value in Making the Change: The intent of this change is to provide positive identification of wetland and sensitive areas where equipment is not allowed to work, materials may not be placed except as allowed by permit, or normal activity is otherwise restricted by permit conditions. Installing the high-visibility fencing as the first order of work, and providing for a second check by WSDOT, is expected to keep encroachment into sensitive areas to a minimum.

Action Requested

Project Development

Provide for the identification and location of all wetland and environmentally sensitive areas. Show these areas in the contract plans and designate location of the required high-visibility construction fencing, according to the criteria outlined above.

Utilize this special provision for all projects where there will be wetland takes, wetland enhancement, or other work in or adjacent to environmentally sensitive areas.

Contract Ad and Award

For projects currently being advertised for bids, this provision will be added to the contract provisions by addendum, if it is possible to do so without impacting the bid opening. Addition of this provision to the contract provision will require associated changes to the plans to show the location and extent of the areas to be protected by fencing, and where the fence is to be placed.

Construction

Projects that are currently under contract, with wetlands or environmentally sensitive areas should consider adding high-visibility construction fencing by change order. This consideration should take into account the remaining work, as to whether there is still a need to provide the additional protection and delineation. The project office should follow the procedure outlined in Section 1-07.16(1) in requiring the contractor to provide the protection.

Identification of the extent of sensitive areas to be fenced should be done with input from the regional environmental staff. A change order will be required to provide compensation for the addition of the construction fencing.

DN:cd
KJD/HJP/JRS
Attachment

cc: John Conrad
Region Project Development Engineers
Region Construction Engineers
Region Construction Trainers
Region Material Engineers

Tom Baker
Kevin Dayton
Harold Peterfeso
Megan White

ORDER OF WORK

Section 1-08.4 is supplemented with the following:

The first order of work on this project shall be the installation of fencing to delineate all wetland and sensitive areas. The areas shall be marked by the Contractor as shown on the plans. The delineation shall consist of High Visibility Fence as described below.

No other work shall be performed on the site until the Contracting Agency has accepted the installation of the wetland and sensitive area delineation. The acceptance shall be evidenced in writing.

Throughout the life of the project, the Contractor shall preserve and protect the wetland and sensitive area delineation, acting immediately to repair or restore any fencing damaged or removed.

High Visibility Fence shall be composed of high-density polyethylene material and shall be at least four feet in height. Posts for the fencing shall be steel or wood and shall be placed at six-foot centers or as needed to provide rigidity. The fencing shall be attached to the post every six inches with a polyethylene tie. Fencing shall not be fastened to the trees.

Measurement

“High Visibility Fence”, per linear foot.

Payment

The unit price for “High Visibility Fence”, per linear foot shall be full compensation for all costs to obtain, install, maintain, and remove the fencing as shown in the plans. Once removed, the fencing shall remain the property of the Contractor.